



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,983	09/12/2003	Richard L. Wilder	29757/P-902	9326

22434 7590 11/13/2006
BEYER WEAVER & THOMAS, LLP
P.O. BOX 70250
OAKLAND, CA 94612-0250

EXAMINER

RENDON, CHRISTIAN E

ART UNIT PAPER NUMBER

3714

DATE MAILED: 11/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

88

Office Action Summary	Application No. 10/661,983	Applicant(s) WILDER ET AL.	
	Examiner Christian E. Rendón	Art Unit 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09-12-2003
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09-12-03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/15/03 & 3/16/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 103

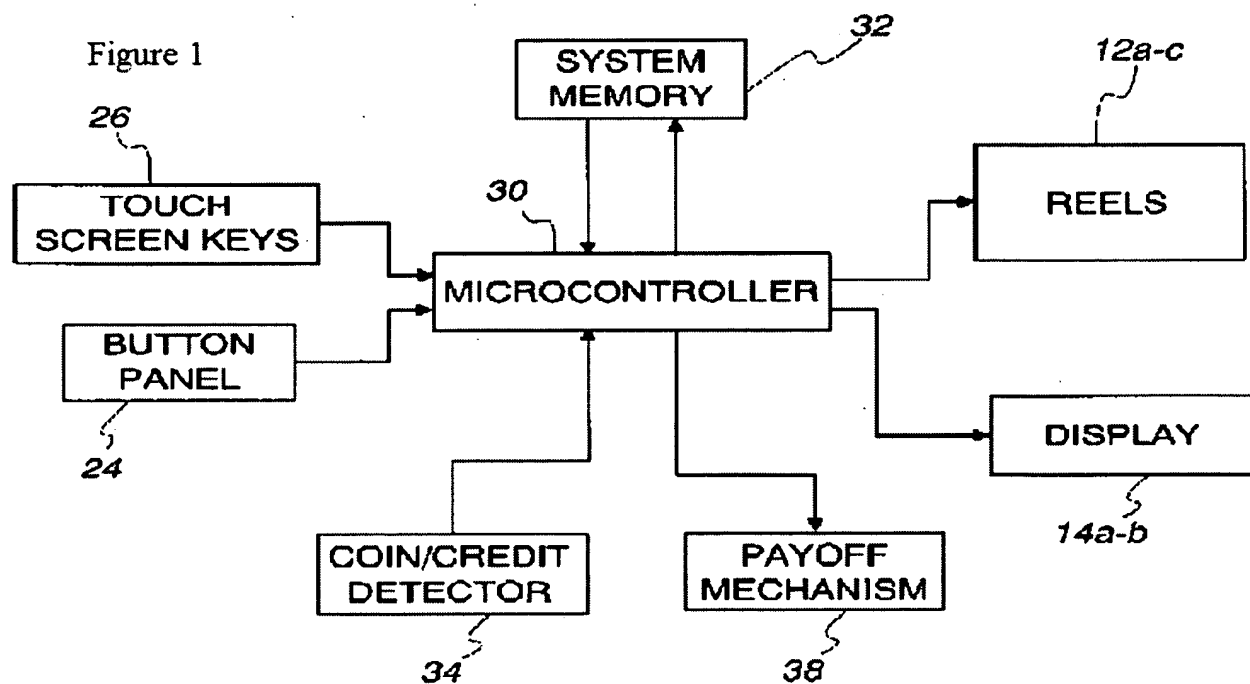
2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11, 14-25 and 27-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loose (US 6,517,433) in view of van Berkel and Clarke ("Characterization and Optimization of 3D-LCD," SPIE International Conference on Electronic Imaging, San Jose, Feb. 11-14, 1997, Vol. 3012). Loose has created "a spinning reel slot machine comprises a plurality of mechanical rotatable reels and a video display" (Loose, column 1, line 42) that can depict "animation transforming" (Loose, column 4, line 66) video images. "The video display may be a CRT, LCD, dot matrix, LED, electro-luminescent, or other type of video display known in the art" (Loose, column 3, line 4). Figure 1 is the diagram Loose provided to explain a slot machine's overall

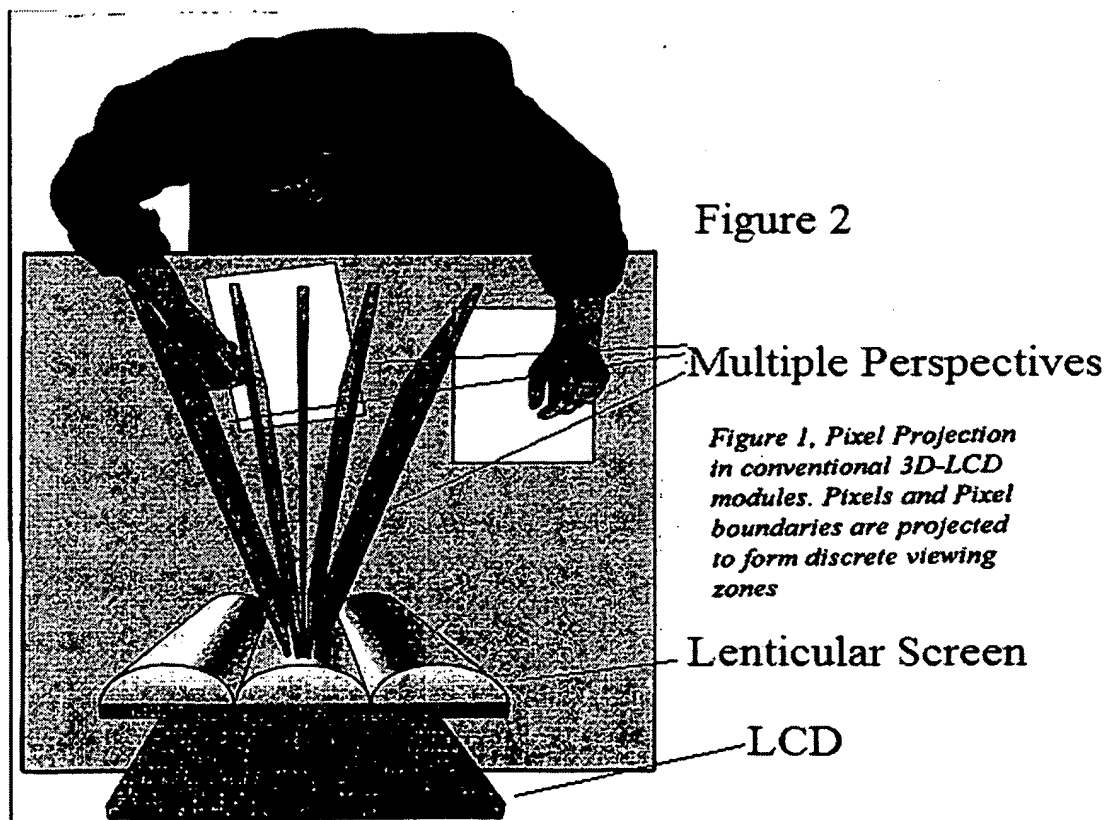
Art Unit: 3714

system structure. Slot machines inherently contain “value input device” (Figure 1, element 34), a display unit (Figure 1, element 14a-b), a microcontroller (Figure 1, element 30), and memory (Figure 1, element 32). “The system memory is used to store game-related data associated with the chance games” (Loose, column 5, line 63), for example “game code, math tables, a random number generator, audio resources and video resources” (Loose, column 5, line 66). The “microcontroller executes the game code” (Loose, column 6, line 4), “accesses the video resources to be included in the video image provided by the video display” (Loose, column 6, line 8), “activate a number of pay lines corresponding to the number of credits played” (Loose, column 3, line 30) and calculates the winnings by “an amount corresponding to the award in the pay table for that combination multiplied by the amount of credits bet” (Loose, column 3, line 67).



Art Unit: 3714

Loose's patent is missing a "display unit comprising a display screen having a plurality of display pixels and a lenticular screen" as a display screen for viewing three-dimensional images and videos. Van Berkel and Clarke teaches the use of Active Matrix Liquid Crystal Display (LCD) and lenticular sheets to provide "a straightforward and optically efficient way of making high quality 3D displays" (Van Berkel and Clarke, pg 179, par. 3, line 1). A multi-view lenticular (MVL) 3D-LCD is able to provide a 3D experience to a user by projecting different perspectives of an object recorded at different angles, which can be viewed individually or interlaced and these "perspective views are simply projections of a discrete LCD pixels" (Van Berkel and Clarke, pg 180, par 4, line 3) (Figure 2). Therefore it is imperative to use a lenticular screen with a smooth and anti-reflective back plane to insure user will view all the multiple views at a clear and high quality.



Art Unit: 3714

The lenticular sheet comprises of multiple columns of lenticule lens, which are aligned to the columns of LC cells at an angle on the horizontal axis (Figure 3).

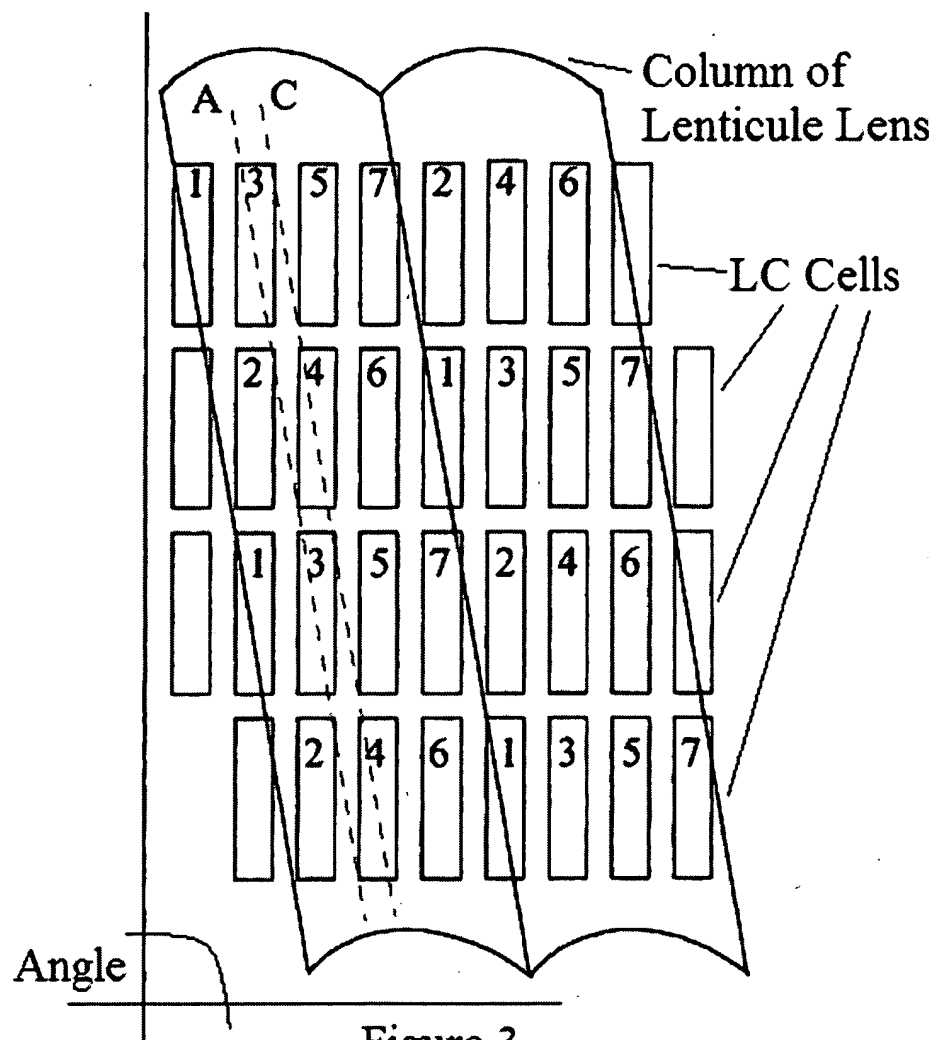


Figure 3

The angle allows the display to compensate for moiré patterns that is an inherent visual effect with MVL 3D-LCD (Van Berkel and Clarke, pg 180, par 4, line 6). The moiré effect or “black vertical bars” are the results of recording a portion of the object at an angle and is more apparent when the user views an individual perspective or the views are not interlaced probably because of an insufficient about of views. Angling the lenticular sheet also allows for “any number of

Art Unit: 3714

views” (Van Berkel and Clarke, pg 184, par 5, line 1) to be achieved. Van Berkel and Clarke discovered that the optimal number of views for MVL 3D-LCD to have a high resolution, balanced aspect ratio, and a maximum viewing distance of 1500mm (Van Berkel and Clarke, pg185) is a 7-view system. Therefore it would be obvious, to one of ordinary skill in the art at the time of the invention was made, to use MVL 3D-LCD as taught by van Berkel and Clarke as the video display for Loose’s slot machine as the next evolutionary step. Loose discloses that the video images can be virtual images, which may be three-dimensional (Loose, column 2, line 66) since Loose wants the images to be interactive (Loose, column 1, line 48) and “capable of effecting extravagant changes to the appearance of the display area” (Loose, column 1, line 52). Loose also discloses that another embodiment of the invention is to have the video image “depict a basic game” (Loose, column 6, line 25), in other words any casino game: poker, keno, blackjack, etc. and the slot reels involve a bonus game (Loose, column 6, line 26). Another advantage of using the MVL 3D-LCD is to produce high quality video images in order to increase the entertainment value of a familiar game and create a new experience for the user. Applicant discloses “nine perspective views” as “preferable to maintain the aspect ratio of the image” (Wilder, par 51, line 10) but provides no evidence as to why nine-view system is preferable over a seven-view system when van Berkel and Clarke discloses a seven-view system as optimal. Therefore a nine-view system is a design choice and not necessary to complete the function of the invention, “provide sufficient perception of the object in three-dimensions from various angles” (Wilder, par 51, line 11).

Art Unit: 3714

3. Claims 12-13 and 26 rejected under 35 U.S.C. 103(a) as being unpatentable over Loose (US 6,517,433) in view of van Berkel and Clarke ("Characterization and Optimization of 3D-LCD," SPIE International Conference on Electronic Imaging, San Jose, Feb. 11-14, 1997, Vol. 3012) as applied to claims 1-11, 14-25 and 27-32 above, and further in view of Acres (US 5,655,961). As mentioned above, Loose's slot machine in view of van Berkel's and Clarke's MVL 3D-LCD is an interactive entertainment system that produces three-dimensional images of the user's game of choice. Neither art discloses the game machine being interconnected through the Internet to form a network of gaming apparatuses. Acres teaches the creation of "a system for monitoring and configuring gaming devices interconnected over a high-speed network" (Acres, Abstract, line 1). The Internet is an example of a "high-speed network". Therefore it would be obvious, to one of ordinary skill in the art at the time of the invention was made, to use Acres's system for interconnecting gaming devices like Loose's slot machine for several advantages. The ability to "extract accounting data from individual gaming devices as well as providing player tracking" (Acres, column 1, line 11), the ability to provide users with casino debit accounts and "reconfigure gaming devices remotely" (Acres, column 2, line 32).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Thomas (US 2001/0048507 a1) discloses a method and display for presenting 3D models under an array of lenticular micro-lenses at different viewing angles (Abstract). Thomas has also provided excellent references in the form of two papers both co-authored by Ceese van

Art Unit: 3714

Berkel. The paper from the 1996 Euro Display Conference teaches how to design and operate a multi-view 3D-LCD.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian E. Rendón whose telephone number is 571-272-3117. The examiner can normally be reached on 8 - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan M. Thai can be reached on 571-272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christian E Rendón
Examiner
Art Unit 3714

CER


XUAN M. THAI
SUPERVISORY PATENT EXAMINER
TC370